

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1. –10. (Canceled)

11. (Original) A spinal delivery system to deliver a tool through tissue, the system comprising:

a tube having a longitudinal axial bore and, at a distal tip, an annular surface surrounding a terminal port;

a housing secured to a proximal end of the tube, the housing having an internal cavity with an aperture formed in a proximal surface thereof opposite the proximal end of the tube;

a tool sized and shaped to be slidably received within the bore of the tube and having a blunt distal tip portion sized to pass through the terminal port in the distal tip of the tube and a proximal end portion sized to pass through the aperture in the proximal surface of the housing, the tool mounted in the housing to move between an extended position wherein the distal tip portion extends beyond the distal tip of the tube and a retracted position wherein the distal tip portion is withdrawn inside the tube; and

a resilient compression member mounted in the housing and configured to engage the tool when the tool is at an intermediate position between the extended position and the retracted position to thereby urge the tool into the extended position.

Claims 12.-13.(Canceled)

14. (Original) A spinal tool delivery system, comprising:

a cannula having at a distal tip an annular surface surrounding a terminal port;

a housing secured to a proximal end of the cannula, the housing having an internal cavity with an aperture formed in a proximal surface thereof opposite the proximal end of the cannula;

a stylet having a blunt distal tip portion sized to pass through the terminal port in the distal tip of the cannula and a proximal end portion sized to pass through the aperture formed in the proximal surface of the housing, the stylet mounted between the distal tip of the cannula and the proximal end of the housing and movable between first loaded position having the proximal end portion thereof projected a predetermined distance from the proximal surface of the housing, and second discharged position having the distal tip portion thereof projected a predetermined distance from the distal tip of the cannula; and

a resilient compression mechanism compressed between a laterally protruding surface of the stylet and the proximal surface of the housing when the proximal end portion of the stylet is projected in the first loaded position the predetermined distance from the proximal surface of the housing, whereby the resilient compression mechanism applies a predetermined pre-load force on the stylet to urge the stylet to project in the second discharged position the distal tip portion thereof the predetermined distance from the distal tip of the cannula.

15. (Original) A spinal needle system, comprising:

a cannula having a bore terminating at a distal tip in an inner peripheral ring of reduced diameter surrounding a terminal port, the inner peripheral ring forming an annular surface in the terminal port;

a plurality of sharp-edged barbs projecting at an angle from the annular surface of the cannula and circumferentially aligned relative to a longitudinal axis of the bore of the cannula;

a housing formed of a distal housing portion coupled to a proximal portion of the cannula and a proximal housing portion releaseably coupled to the distal housing portion, the distal and proximal housing portions enclosing an internal cavity with an aperture formed in a surface of the proximal housing portion opposite from the distal housing portion;

a stylet having a blunt distal tip portion sized to pass through the inner peripheral ring surrounding the terminal port at the distal tip of the cannula, a shoulder portion at a predetermined setback distance from the extent of the blunt distal tip, the shoulder portion sized to interfere with the inner peripheral ring, and at a proximal end an indicator portion sized to pass through the aperture formed in the proximal housing portion, the stylet mounted between the distal tip of the cannula and the proximal end of the proximal housing portion and movable between a first arrangement having the proximal end portion thereof projected from the proximal surface of the housing, and a second arrangement having the distal tip portion thereof projected from the distal tip of the cannula and the shoulder portion in contact with the inner peripheral ring; and

a resilient compression mechanism compressed between a laterally protruding rigid surface of the stylet and the surface of the housing having the aperture formed therein when the indicator portion at the proximal end of the stylet is projected from the proximal surface of the housing in the first arrangement, whereby the resilient compression mechanism applies a predetermined pre-load force on the laterally protruding rigid surface of the stylet to urge the stylet to project in the second arrangement the distal tip portion thereof from the distal tip of the cannula.

Claims 16.-23. (Canceled)

24. (Original) A spinal delivery system to deliver a tool into tissue, the system comprising:

a tube having a longitudinal axial bore and, at a distal tip, an annular surface surrounding a terminal port, and member for grasping and releasing tissue without puncturing the tissue;

a housing secured to a proximal end of the tube, the housing having an internal cavity with an aperture formed in a proximal surface thereof opposite the proximal end of the tube;

a tool sized and shaped to be slidably received within the bore of the tube and having a blunt distal tip portion sized to pass through the terminal port in the distal tip of the tube and a proximal end portion sized to pass through the aperture in the proximal surface of the housing, the tool mounted in the housing to move between an extended position wherein the distal tip portion extends beyond the distal tip of the tube and a retracted position wherein the distal tip portion is withdrawn inside the tube; and

a resilient compression member mounted in the housing and configured to engage the tool when the tool is at an intermediate position between the extended position and the retracted position to thereby urge the tool into the extended position.

Claims 25.-40. (Canceled)